

Final Evaluation Report

We ask all grant recipients to complete a project evaluation that helps us to gauge the success of your project. This must be sent in **MS Word and not PDF format**. We understand that projects often do not follow the predicted course but knowledge of your experiences is valuable to us and others who may be undertaking similar work – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please DO NOT fill in and submit this form until the project has been completed.

Complete the form in English. Note that the information may be edited before posting on our website.

Please email this report to jane@rufford.org.

Your Details	
Full Name	Aditya Pradhan
Project Title	Promoting bird conservation through community engagement in Darjeeling, Eastern Himalaya, India
Application ID	43488-2
Date of this Report	30 Jan 2026

1. Indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.

Objective	Not achieved	Partially achieved	Fully achieved	Comments
To understand human-bird interactions in terms of conflict (crop depredation), ecosystem services (pest management, aesthetic value, cultural values), and economic benefits from community perspectives				Perceptions toward birds were assessed through a structured questionnaire administered to 526 (380 male, 146 female) respondents across the study landscape.
To build the capacity of local community members as proficient birding guides through birding guide training in potential bird tourism sites.				Two Bird Guide Training and one Refresher Bird Guide Training were conducted, training 57 participants from the local community.
To build wider public awareness for bird conservation using citizen science tools for documenting birds, as well as observing changes in bird habitats in the landscape.				Citizen Science was included in the training module in all the training workshops (n=3) conducted. Participants were instructed to download, install, and use them during field sessions to document birds encountered. Participants continue to use these tools even after the training.
To assess the impact of birding guide training by gathering insights into the experiences of trained guides and their communities post-training.				Surveys of trained birding guides (n=59, 11 females, 48 males) were carried out through in-person and phone interviews to assess the impact of Bird Guide Training.

2. Describe the three most important outcomes of your project.

a). Exploring the local perceptions associated with birds that co-inhabit the non-protected socio-ecological landscapes

Perceptions toward birds were assessed through a structured questionnaire administered to 526 (380 male, 146 female) respondents across the study landscape. The respondents expressed strongly positive attitudes, particularly toward the aesthetic, emotional, educational, and ecological roles of birds. Respondents consistently rated birds highly for being visually appealing and acoustically pleasing, while also associating them with improved personal well-being and a sense of familiarity within everyday environments. Birds were widely recognised as indicators of seasonal change and integral components of local ecosystems, with participants also emphasising their value for environmental learning and nature education for children. Collectively, these findings highlight deep affective connections and substantial ecological awareness among community members living in non-protected socio-ecological landscapes.



Photo 1. Interviewing local community members to understand their perceptions associated with birds in their neighbourhood.

In contrast, perceptions related to livelihood benefits were comparatively moderate, indicating that although birds are highly valued intrinsically, their potential contribution to household income, such as through bird-based tourism, remains limited or unevenly accessible. Negative perceptions were generally low across most indicators, including nuisance, aggression, noise, hygiene, and conflicts with pets. However, relatively higher concern was expressed regarding agriculture-related impacts, particularly crop damage, damage to plants or property, and losses of poultry or livestock, suggesting localised areas of human–bird conflict within farming contexts. Despite these concerns, overall responses reflected substantially stronger positive than negative perceptions toward birds.

Taken together, the results reveal a predominantly positive relationship between local communities and birds, characterised by strong cultural, emotional, and

ecological appreciation alongside comparatively minor conflict-related concerns. Importantly, the observed gap between high intrinsic value and limited perceived livelihood benefits highlights a key opportunity for community-based birding initiatives to build on existing goodwill toward birds while addressing economic aspirations. These perception findings provided a critical social baseline for the project and directly informed subsequent capacity-building activities and the development of the Birding Guide Training Curriculum. A detailed analysis of the perception dataset is currently being prepared as a separate manuscript for publication.

b). Building the capacity of potential birding guides, and gathering insights into the experiences of previously-trained guides from the local community

Two Bird Guide Trainings and one Refresher Bird Guide Training were conducted across Darjeeling and Kalimpong, reaching a total of 57 participants. All participants were local community members aspiring to build sustainable livelihoods as nature guides. The trainings were held at Maneybhanjyang, Darjeeling (in collaboration with the Tonglu Forest Range and Darjeeling Wildlife Division), and at Amblok Busty, Kalimpong.

The programmes combined classroom instruction with field-based learning, covering bird and butterfly identification, guiding techniques, use of citizen science platforms (eBird, Merlin Bird ID, iNaturalist), and conservation awareness. Participants collectively documented over 100 bird species, contributing to biodiversity databases while strengthening local monitoring capacity.



Photo 2: Participants of the Darjeeling-Kalimpong Bird Guide Refresher Training in Maneybhanjyang, Darjeeling.

In addition to on-ground capacity building, the trainings received wide outreach through regional newsletters, local newspapers, and social media-based news platforms, including coverage in *DTV* and *Himal World* (popular local news channels). *Eastern Himalaya* (ATREE quarterly bulletin), *Himalaya Darpan* (a popular

Nepali News Daily), *Jan Path* (a popular Hindi News Daily). This visibility helped amplify project outcomes, raise public awareness on bird conservation and community-led ecotourism, and highlight the role of local youth in safeguarding Himalayan biodiversity. Together, these efforts supported alternative livelihood pathways, strengthened community stewardship in non-protected landscapes, and positioned participants as long-term ambassadors for conservation (Annexure 1).



Photo 3: Interviewing a participant of Bird-guiding Training conducted in Samsing, Kalimpong

Further, birding guides trained during our previous projects were interviewed to assess how our training has impacted them (n=59; 11 females, 48 males). The survey revealed that the training was highly effective in enhancing knowledge, skills, and conservation-oriented attitudes. Participants demonstrated strong bird identification abilities and an improved capacity to explain bird behaviours to others. Beyond technical skills, guides showed a marked increase in appreciation for biodiversity, interest in species and habitat protection, recognition of tourism's conservation value, general interest in birds, connection to nature, and demand for advanced training. Knowledge-sharing with local communities was widespread, indicating active dissemination of conservation awareness. Despite moderate ongoing bird observation and citizen science participation like eBird, stewardship now extends to broader ecological awareness.

However, practical constraints limited the application of these skills. Opportunities for leading tours were low, guiding frequency was limited, income gains were minimal, collaboration with other stakeholders was restricted, and participation in citizen science platforms was modest, linked to inadequate promotion, equipment shortages, and rugged terrain. Preparedness for handling tourists and adherence to nature-friendly practices stayed solid. Nearly all expressed strong interest in advanced training on identification, guiding skills, and tourism management, highlighting needs for ongoing support, including equipment, marketing networks, and refresher workshops to build sustainable livelihoods and biodiversity monitoring. The findings suggest that the training successfully built knowledge and positive

attitudes, but additional support is needed to translate these skills into sustained conservation action. Enhancing promotion, providing equipment, and expanding networking and collaboration opportunities could improve guiding frequency, livelihoods, and long-term conservation impacts in Eastern Himalayan communities.

c). Development of a Birding Curriculum

The Bird Guide Training Curriculum was developed to strengthen the capacity of local communities in the Darjeeling–Kalimpong Himalaya to lead nature-based tourism while promoting biodiversity conservation. It is designed to equip local youth, aspiring nature guides, and conservation educators with a combination of theoretical knowledge and practical skills necessary for professional birding and responsible guiding. The curriculum covers essential areas such as bird identification, behavioural ecology, habitat interpretation, guiding techniques, and effective communication strategies. It also emphasises awareness of broader conservation issues and sustainable tourism practices, ensuring that participants understand both ecological principles and the social context of conservation-focused tourism. The handbook is bilingual, with text available in both English and Nepali, to ensure accessibility to a wider range of participants across the region.

A key consideration in developing this curriculum was accessibility. Trainers recognised that it may not always be possible to reach local youth across the region due to financial, logistical, or work-related constraints. To address this, the handbook itself was designed to serve as a standalone resource, providing comprehensive guidance that allows participants to learn independently or supplement in-person training. This ensures that capacity-building efforts can reach communities widely, even when direct trainer-led workshops are not feasible.

The curriculum adopts a hands-on, interactive approach to learning. Modules include field exercises, guided observations, and participatory activities, encouraging learners to apply theoretical knowledge in real-world contexts. Additionally, it integrates guidance on responsible tourism practices, participation in citizen science initiatives, and engagement with local communities, fostering both practical skills and ethical awareness.

To optimize our funding, we integrated the local bird identification booklet directly into the *Birding Guide Curriculum* book rather than printing it separately. A total of 1,000 copies of the book have been printed. Copies of the book, alongside a limited run of high-quality posters titled ‘*Woodpeckers of Darjeeling-Sikkim Himalaya*’ featuring accurate hand-painted illustrations, have already been distributed to key local institutions. These include the Zoology departments of Sikkim University and Nar Bahadur Bhandari Government College, the Rimbick and Rangeet Mazuwa Guide Associations, Singalila National Park, St. Robert’s School, the Himalayan Society for Nature and Science, and the Mahananda Eco Tourism and Conservation Society. Further poster distributions are planned for similar institutions across Darjeeling. Finally, the book will officially launch at an event in Latpanchar on May 22, 2026, after which it will be distributed widely among training participants, nature guides, biodiversity enthusiasts, citizen scientists, and other local institutions.



Photo 4: Presentation of the poster “Woodpeckers of the Darjeeling–Sikkim Himalaya” to Prof. Bhoj Kumar Acharya, Department of Zoology, Sikkim University.

3. Explain any unforeseen difficulties that arose during the project and how these were tackled.

Several unforeseen difficulties arose during the implementation of the bird guide training project. One of the main challenges was organising participants for the planned refresher training. While the session was initially designed for 25 participants, only 18 were able to attend due to scheduling conflicts and other commitments. To address this, the training was converted into a residential format, allowing participants to remain on-site and fully engage with the modules. Despite this adaptation, last-minute cancellations posed additional difficulties, requiring the team to identify replacement participants on short notice, which was logistically challenging.

Data collection for assessing participant perceptions and training impacts also took longer than anticipated. Many participants were unavailable during planned visits, and the team had to supplement in-person data collection with phone interviews. While this ensured inclusion, it increased the time and effort required to gather and validate responses.

The development of the Bird Guide Training Curriculum itself was another time-intensive process. Ensuring that the curriculum was comprehensive, practical, and accessible in both English and Nepali required careful planning, iterative revisions, and integration of feedback from multiple stakeholders. Despite these challenges, adaptive strategies, including flexible scheduling, residential sessions, and remote

follow-ups, enabled the project team to successfully complete the training, data collection, and curriculum development, ensuring that the objectives of capacity building and conservation impact assessment were met.

4. Describe the involvement of local communities and how they have benefited from the project.

Local communities were central to the implementation and success of the bird guide training project. Community members actively participated as trainees, providing local knowledge of landscapes, birds, and cultural contexts that enriched the training sessions. Homestay operators, forest staff, and aspiring nature guides were engaged not only as learners but also as collaborators, helping to organize field exercises and community awareness activities. This participatory approach fostered a sense of ownership and responsibility among community members toward local biodiversity and sustainable tourism initiatives.

The project has provided multiple benefits to local communities. Participants acquired professional skills in bird identification, guiding techniques, habitat interpretation, and communication, enhancing their capacity to engage in nature-based tourism. The bilingual handbook allows youth and aspiring guides to continue learning independently, extending training benefits beyond direct workshop sessions. Communities have also gained increased awareness of conservation issues, sustainable tourism practices, and the ecological and cultural value of local landscapes.

In addition to skill development, the project has helped build social and professional networks among guides, local tourism operators, and conservation practitioners. This has strengthened opportunities for collaboration, knowledge sharing, and livelihoods linked to eco-tourism. Overall, the involvement of local communities has not only supported conservation objectives but also empowered participants with skills, knowledge, and confidence to contribute actively to sustainable tourism and biodiversity stewardship in the Darjeeling–Kalimpong Himalaya.

We also trained an intern during the project, Ms. Yashvi Dewan, who was recently [awarded](#) a residential ICON Fellowship, which aims to empower youth as architects of sustainable change.

5. Are there any plans to continue this work?

Building on the positive outcomes of the project, there are plans to continue and expand birding-related initiatives in the Darjeeling–Kalimpong Himalaya, subject to the availability of funding. Refresher workshops and advanced training sessions are envisaged for previously-trained guides to strengthen skills in bird identification, guiding techniques, tourism management, and biodiversity monitoring. The bilingual handbook will continue to serve as a core resource, enabling self-directed learning for local youth and aspiring guides, especially in areas where in-person training may not be feasible due to logistical or work-related constraints.

Future efforts will also focus on improving the practical application of training, including creating more tour leadership opportunities, providing essential equipment, facilitating collaboration among guides and local tourism operators,

and supporting participation in citizen science platforms. These steps aim to enhance livelihoods, improve visitor experiences, and strengthen community-led biodiversity stewardship. Continued engagement with local communities and impact monitoring will ensure that the program remains adaptive and responsive. The long-term success and expansion of these initiatives, however, will depend on securing adequate funding to support workshops, materials, and community engagement activities.

Importantly, building on the success of this project, a dedicated component on bird- and butterfly-based ecotourism has been incorporated into the ongoing *Action for Mountains and Peoples* project under *The Himalaya Initiative* at ATREE. This integration is expected to provide continued support to trained participants and other aspiring guides from the local community, strengthening both conservation outcomes and sustainable livelihood pathways.

6. How do you plan to share the results of your work with others?

The results of this project will be shared through multiple channels to reach local communities, the broader conservation community, and the scientific audience. Locally, findings are communicated to participants, community members, and stakeholders through workshops, training sessions, and follow-up meetings, ensuring that knowledge gained benefits those directly involved. The bilingual Bird Guide Training Curriculum also serves as a key tool for dissemination, enabling local youth, aspiring guides, and conservation educators to access the training material independently or as part of structured workshops.

At the academic level, the project is generating two peer-reviewed publications: one examining community perceptions of birds in non-protected socio-ecological landscapes, and another evaluating the impacts of the bird guide training program. We have already submitted a manuscript titled "*Knowledge is Not Enough: Behavioural Engagement Mediates Conservation-Livelihood Pathways in the Himalaya*" to *Biological Conservation*, while a second paper on human-bird relationships is currently being finalised. Together, these studies contribute to advancing the scientific understanding of community-based conservation, capacity-building, and sustainable birding practices.

Additionally, two popular articles are being prepared to disseminate findings to a broader audience: one in Nepali for publication in a widely read daily newspaper, and another in English for an environmental news platform. Together, these outputs aim to promote awareness of bird conservation and encourage responsible tourism practices.

Although our work was selected for a poster presentation at the Student Conference on Conservation Science (SCCS), University of Cambridge, I was unable to participate in the event due to the delayed arrival of the necessary travel grant. Despite this, the acceptance of our results by such a prestigious global platform highlights the international relevance of this study.

Through this multi-pronged approach, including academic publications, local engagement, popular media, and international dissemination, the knowledge

generated by the project will reach diverse audiences, fostering conservation awareness, community engagement, and sustainable livelihoods in the Eastern Himalaya.

7. Looking ahead, what do you feel are the important next steps?

Building on the successes and lessons from this project, the next steps focus on consolidating capacity, expanding reach, and strengthening the long-term impacts of bird conservation and community-based tourism in the Darjeeling–Kalimpong Himalaya. A priority is to conduct refresher and advanced training workshops for previously-trained guides to enhance bird identification skills, guiding techniques, tourism management, and biodiversity monitoring. Expanding opportunities for tour leadership, facilitating participation in citizen science platforms, and providing essential equipment will help translate acquired skills into practical conservation and livelihood benefits.

Efforts will also focus on increasing the accessibility and use of the bilingual Bird Guide Training Curriculum, enabling local youth and aspiring guides to continue learning independently, particularly in areas where in-person training may not be feasible due to financial, logistical, or scheduling constraints. Strengthening networking among guides, homestay operators, forest staff, and eco-tourism associations is another important step, fostering collaboration and sustainable livelihood opportunities linked to responsible birding.

Monitoring and evaluating the outcomes of both training and community engagement initiatives will continue to inform adaptive strategies, ensuring that the program remains responsive to local needs and maximizes conservation impact. Importantly, the scale and pace of these next steps will depend on securing adequate funding to support workshops, materials, equipment, and ongoing community engagement activities. The project aims to build a resilient network of skilled local guides who serve as ambassadors for biodiversity, sustainable tourism, and conservation stewardship across the Eastern Himalaya.

8. Did you use The Rufford Foundation logo in any materials produced in relation to this project? Did the Foundation receive any publicity during the course of your work?

Yes, The Rufford Foundation logo was included in all materials produced for this project, including the Bird Guide Training Curriculum handbook, woodpecker poster, workshop banners, and printed training resources. The Foundation was also acknowledged in presentations, reports, and outreach activities associated with the project.

During the course of the project, The Rufford Foundation received publicity through multiple channels. Their support was highlighted in local workshops, community engagement sessions, and training programs. Additionally, The Rufford Foundation was formally acknowledged in communications with participants, stakeholders, and collaborators, ensuring visibility and recognition of their contribution to biodiversity conservation and capacity-building initiatives in the Darjeeling–Kalimpong Himalaya.

9. Provide a full list of all the members of your team and their role in the project.

Dr. Aditya Pradhan: Project Leader and Researcher. He was involved in all project activities and was responsible for the overall deliverables to Rufford.

Dr. Sarala Khaling: Project Advisor. She played a vital role in project supervision, offering essential feedback during the initial part of the project.

Dr. Nakul Chettri: Project Advisor. He played a crucial role in project supervision, offering essential feedback during the latter half of the project.

Ms. Yashvi Dewan: Intern. She played a pivotal role in data collection and coordinating training workshops. She was recently awarded a residential ICON Fellowship, which aims to empower youth as architects of sustainable change.

Dr. Saibal Sengupta: Team member and co-author of the handbook prepared under this project. He facilitated as a resource person for all the Birding Guide Trainings.

Dr. Sailendra Dewan: Team member. He provided feedback throughout the project and participated as a resource person for the Refresher Training in Maneybhanjyang.

Dr. Avantika Thapa: Team member. She helped in coordination and participated as a resource person for the Training in Ambiok Busty.

Mr. Pranjal Mahananda: External Resource person. He participated as a resource person for the Refresher Training in Maneybhanjyang.

Mr. Sanjok Dewan: External Resource person. He participated as a resource person for the Refresher Training in Maneybhanjyang.

Mr. Yumlam Benjamin Bida: Team member. He participated as a resource person for the Training in Ambiok Busty.

Mr. Sanjeeb Pradhan: Team member. He participated as a resource person for the Training in Ambiok Busty.

Mr. Mingma Tamang: Team member. He participated as a resource person for the Refresher Training in Maneybhanjyang.

10. Any other comments?

I would like to sincerely thank The Rufford Foundation, UK, for supporting this project and for their continued support throughout my PhD journey. Their funding has been instrumental in advancing community-based conservation efforts and capacity building in the Eastern Himalaya. Further updates on the project, including peer-reviewed publications and outreach materials, will be shared as they become available.

ANNEX – Financial Report
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